

GROSSMAN D KEITH  
Form 4  
May 21, 2010

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
GROSSMAN D KEITH

2. Issuer Name and Ticker or Trading Symbol  
THORATEC CORP [THOR]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
6035 STONERIDGE DRIVE  
(Street)

3. Date of Earliest Transaction (Month/Day/Year)  
05/19/2010

Director  10% Owner  
 Officer (give title below)  Other (specify below)

PLEASANTON, CA 94588

4. If Amendment, Date Original Filed (Month/Day/Year)

6. Individual or Joint/Group Filing (Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------|---|---|--|---|
|                                 |                                      |  |                    | (A) or (D) Price  |   |  |   |
| Common Stock                    | 05/13/2010                           |  | G                  | V Amount (D)  | \$ 0 (3) 10,000   | D  |   |
| Common Stock                    | 05/18/2010                           |  | G                  | V Amount (D)  | \$ 0 (3) 8,750  | D  |   |
| Common Stock                    | 05/20/2010                           |  | G                  | V Amount (D)  | \$ 0 (3) 7,500  | D  |   |
| Common Stock (1)                | 05/19/2010(2)                        |  | A                  | V Amount (A)  | \$ 0 (3) 12,500   | D  |   |
| Common Stock                    | 05/13/2010                           |  | G                  | V Amount (A)  | \$ 0 (3) 9,508  | I  | By Separate Property                                  |

|              |            |   |       |   |             |        |   |  |
|--------------|------------|---|-------|---|-------------|--------|---|--|
| Common Stock | 05/18/2010 | G | 1,250 | A | \$ 0<br>(3) | 10,758 | I | Trust <sup>(4)</sup><br>By<br>Separate<br>Property<br>Trust <sup>(4)</sup> |
| Common Stock | 05/20/2010 | G | 1,250 | A | \$ 0<br>(3) | 12,008 | I | By<br>Separate<br>Property<br>Trust <sup>(4)</sup>                         |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

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(9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Owned Following Reporting Transaction (Instr. 6) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|--|---|
|  |  |                                      |  | Code                           | V (A) (D)   | Date Exercisable   | Expiration Date   | Title                                      | Amount or Number of Shares  |

## Reporting Owners

| Reporting Owner Name / Address                                    | Relationships |           |         |       |
|---|---------------|-----------|---------|-------|
|   | Director      | 10% Owner | Officer | Other |
| GROSSMAN D KEITH<br>6035 STONERIDGE DRIVE<br>PLEASANTON, CA 94588 |               | X         |         |       |

## Signatures

/s/David A. Lehman,  
Attorney-In-Fact

05/20/2010

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Represents restricted stock units. Each restricted stock unit represents a right to receive one share of Thoratec Corporation common stock upon vesting. The restricted stock units vest in four equal annual installments commencing one year after the grant date.
- (2) Annual stock grant according to the Company's 2006 Incentive Stock Plan.
- (3) Restricted stock was granted pursuant to the Company's 2006 Incentive Stock Plan with no payment received for the restricted stock.
- (4) D. Keith Grossman & Hallie Hildebrand Grossman, TTEES Grossman Family Trust

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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